

REMARKS

By the present amendment, claims 1, 10 and 13-15 have been amended. The specification has been amended to correct typographical errors.

The present invention allows a user to select and initiate recording of a digital signal (e.g., a digital audio segment) via a player/recorder device while the signal is being broadcast (e.g., via a digital satellite broadcast system) and received. The recorded signal can then be played back via the player/recorder device at a later time. The player/recorder device buffers the received signal and is operable to determine if a sufficient amount of the signal selected for recording has been buffered to allow recording from the beginning of the desired segment. If not, the segment is not recorded in response to the user's request. The player/recorder device has a smart card reader to allow a user to pay for a portion of a broadcast signal that has been recorded. The player/recorder is adapted to decipher a recorded signal that is encrypted (e.g., upon user payment), as well as to record the deciphered content onto a storage medium following payment.

In the Office Action, claims 1-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,790,935, to Payton, in view of U.S. Patent No. 6,272,535, to Iwamura, and U.S. Patent No. 5,757,909, to Park. The Payton patent is relied on for purportedly teaching a receiver for receiving an encrypted digital signal, a memory for storing the received encrypted digital signal, and a recorder for recording deciphered signals for playback following decryption of the received encrypted signal. The Office Action relies on the Iwamura patent and the Park patent to teach accessing encrypted data using a card from which monetary credits can be deducted prior to decryption.


The Payton patent, however, does not disclose or suggest the invention as claimed. For example, claim 1 recites an apparatus comprising a player for playing back a recorded digital signal, that is, a signal that has been received via a receiver, stored in memory, and then recorded onto a first recorded medium. As recited in claim 1, the player is not authorized to play the first recording medium until a card reader verifies that a card inserted therein has at least a selected minimum value. Claim 1, as amended herein, also recites that the apparatus monitors how much of the digital signal is stored in the memory as the signal is being received, and records the digital signal onto the first recording medium if a predetermined portion of the digital signal is in the memory. The claimed invention is exemplified by a radio receiver in a vehicle that receives and buffers

a broadcast signal. The radio receiver permits a user to listen to the broadcast signal and, as it is being received, to choose to record the signal onto a recording medium if a sufficient amount of the signal (e.g., the beginning of a selected broadcast song) has been buffered. By contrast, the system disclosed in the Payton patent transmits pre-selected digital items to each subscriber's local server 28 (Fig. 1) from the central distribution server 24. The pre-selected digital items are selected based on their popularity among subscribers or upon a user's demand. The Payton patent does not disclose or suggest allowing a subscriber to select and then record a digital item, as it is being received and stored, if the item has been sufficiently buffered. The Iwamura patent and the Park patent do not overcome the deficiencies of the Payton patent. Accordingly, withdrawal of the 35 U.S.C. § 103(a) rejection of claim 1 and dependent claims 2-9 is believed to be proper and is respectfully requested.

The independent claims 10 and 13 (as amended herein) also recite storing a digital signal as it is being received and recording the signal if a predetermined portion of the signal is stored, among other features of the present invention. Withdrawal of the 35 U.S.C. § 103(a) rejection of claims 10 and 13 and their corresponding dependent claims 11-12 and 14-18 is also respectfully requested.

In view of the foregoing, the application, including claims 1-18, is believed to be in condition for allowance. If the Examiner has any questions regarding any of the foregoing, the Examiner is invited to contact the undersigned.

Respectfully submitted,


Stacey J. Longanecker
Attorney for Applicants
Reg. No. 33,952

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Roylance, Abrams, Berdo & Goodman, L.L.P.
1300 19th Street, N.W. Suite 600
Washington, D.C. 20036
(202) 659-9076

**MARKED-UP VERSION OF SPECIFICATION AND CLAIMS INDICATING
PROPOSED REVISIONS**

IN THE SPECIFICATION:

The second paragraph on page 3 of the originally filed specification has been amended as follows:

-- In accordance with another aspect of the present invention, a method is provided whereby a user can record an encrypted digital audio broadcast onto a recording medium, then insert a smart card [card] having a monetary value encoded thereon into a player, in order to begin the deciphering process. The player deducts the appropriate number of credits or monetary amount from the smart card, and proceeds to decipher the encrypted recording. As the recording is deciphered, the player records the deciphered digital audio onto a second recording medium.--

The second and third paragraphs on page 5 of the originally filed specification has been amended as follows:

-- The player/recorder 14 is provided with a processor 32 which is connected to a memory 31, a record button 34, a play button 36, a first readable/writeable recording medium 38, a second readable/writeable recording medium 39 and a smart card reader 42. A duplicate key 26 is stored in the memory 31.

With reference to the flowcharts in Figs. 2 – 3, and by way of illustrative example, a user can record an encrypted digital audio signal 28 onto a readable/writeable recording medium 38 for later playback. The recording medium 38 can be any recording medium suitable for digital recording, such as a compact disc, a mini disc, an optical disc or a digital audio tape.--

IN THE CLAIMS:

Please amend claims 1, 10 and 13-15 as follows:

1. (Amended) An apparatus for recording and playing a digital signal, comprising:
a receiver for receiving a digital signal;

a memory connected to said receiver for storing at least part of said digital signal as it is being received;

a recorder connected to said receiver for recording onto a first recording medium said [stored] digital signal [upon selection of a predetermined command] in response to a user request if a predetermined portion of said digital signal is in said memory;

a player for playing said first recording medium and connected to a card reader;
and

a card having a predetermined value for insertion into said card reader;

wherein when said card is inserted into said card reader, said card reader verifies that said predetermined value is at least a selected minimum value and authorizes said player to play said first recording medium.

10. (Amended) A method for recording and playing digital signals, comprising:
receiving an encrypted digital signal;
storing said encrypted digital signal in a memory device as it is being received;
determining whether a pre-determined portion of said encrypted digital signal is in said memory device in response to a user request to record said encrypted digital signal;

recording [an] said encrypted digital signal onto a first recording medium in a recorder and player device if said pre-determined portion of said encrypted digital signal is stored in said memory device;

inserting a card having at least a predetermined value into said recorder and player device;

determining that said predetermined value corresponds to at least a selected minimum value; and

deciphering said encrypted digital signal if said card has said selected minimum value.

13. (Amended) A method for recording and playing an encrypted digital audio broadcast signal, comprising:

receiving an encrypted digital audio broadcast signal;

storing at least part of said encrypted digital audio broadcast signal in a memory device as it is being received;

electing to record said encrypted digital audio broadcast signal onto a first recording medium;

determining whether a predetermined portion of said encrypted digital audio broadcast [signals] signal is in said [receiver] memory device; and

recording said encrypted digital audio broadcast signal onto said first recording medium if said [pre-determined] predetermined portion of said encrypted digital audio broadcast signal is stored in said memory device.

14. (Amended) The method as claimed in claim 13, [further comprising the step of continuing to record] wherein said encrypted digital audio broadcast signal [in said memory device] is not recorded if said predetermined portion of said encrypted digital audio broadcast signal is not stored in said memory device.

15. (Amended) The method of claim 13, further comprising the steps of:
inserting a card provided with a monetary amount into a card reader connected to said [player/recorder] recorder and player;

verifying that said monetary amount corresponds to a selected minimum value;
and

deciphering said encrypted digital audio broadcast [signals] signal on said first recording medium if said card has said selected minimum value; and

recording said deciphered digital audio broadcast signals on one of said first recording medium and a second recording medium].